IN THE CLAIMS:

Cancel claim 2, without prejudice or disclaimer.

Amend the claims as follows:

Amendments to the Claims:

1. (currently amended) A method for acoustic transducer calibration in a portable communications device comprising the steps of:

providing a source of pseudo random acoustical noise to ~~an~~ a characterized external speaker source separate from the portable communications device;

directing the pseudo random acoustical noise to an input of ~~a~~ an internal microphone used with the portable communications device;

adjusting first coefficients in at least one digital signal processor connected to the internal microphone for a desired microphone frequency response based upon the input of pseudo random acoustical noise;

discontinuing the source of pseudo random acoustical noise from the external speaker source;

applying the source of pseudo random acoustical noise to an internal speaker source in the portable communications device;

increasing the amplitude of the pseudo random acoustic noise such that it can be detected by the internal microphone;

adjusting second coefficients in the at least one digital signal processor for a desired internal speaker frequency response based upon the input of the pseudo random acoustical noise; ~~and~~

returning the portable communications device to an operational mode; and

utilizing a filter between the source of pseudo random acoustical noise and the external speaker to compensate for irregularities in the frequency response of the external speaker.

2. CANCEL

3. (original) A method of acoustic transducer calibration as in claim 1 further including the step of:

comparing the output of the at least one digital signal processor with an optimal acoustic signal from the output of the pseudo random acoustic noise to provide an error signal for adjusting the coefficients of the at least one digital signal processor.

4. (original) A method of acoustic transducer calibration as in claim 1 wherein the source of pseudo random noise is from the at least one digital signal processor.

5. (currently amended) A method of acoustic transducer calibration for tuning ~~a~~ and internal microphone and internal speaker in a portable two-way radio without the use of test equipment comprising the steps of:

supplying a source of pseudo random noise from at least one digital signal processor;

filtering the pseudo random noise to provide a compensated pseudo random noise signal;

supplying the compensated pseudo random noise signal to a speaker external to the portable two-way radio;

directing the compensated pseudo random noise signal to ~~a~~ the internal microphone associated with the portable two-way radio;

filtering the output of the internal microphone to provide a compensated microphone signal;

supplying the compensated microphone signal to the at least one digital signal processor;

comparing the output of the source of pseudo random noise with an output of the at least one digital signal processor;

compensating a plurality of filter coefficients in the at least ~~on~~ one digital signal processor based upon differences in the source of the pseudo random noise and an output of the at least one digital signal processor; and

stopping the source of pseudo random noise; and

returning the portable two-way radio to an operational mode.

6. (previously presented) A method of acoustic transducer calibration as in claim 5, further including the step of:

delaying the source of pseudo random noise compared with the output of the at least one digital signal processor for synchronizing the source of pseudo random noise with the output of the at least one digital signal processor.

7. (currently amended) A method of acoustic transducer calibration for optimizing the frequency response and gain of a microphone located within a portable communication device comprising the steps of:

generating a source of acoustic pseudo random noise from at least one digital signal processor located in the portable communications device;

providing the acoustic pseudo random noise to an external speaker;

directing the acoustic pseudo random noise from the external speaker to the microphone located within the portable communication device;

porting the output of the microphone to the at least one digital signal processor;

comparing the acoustic pseudo random noise with an output of the at least one digital signal processor; and

adjusting a plurality of coefficients in the at least one digital signal processor based upon differences in the acoustic pseudo random noise and the output of the at least one digital signal processor to produce an optimized microphone output for the portable communications device.

8. (currently amended) A method of acoustic transducer calibration for optimizing the frequency response and gain of an internal speaker located within a portable communication device comprising the steps of:

generating a source of acoustic pseudo random noise from at least one digital signal processor located in the portable communications device;

providing the acoustic pseudo random noise to the internal speaker;

directing the acoustic pseudo random noise from the internal speaker to a microphone in the portable communications device;

porting the output of the internal speaker to the at least one digital signal processor;

comparing the acoustic pseudo random noise with an output of the at least one digital signal processor ; and

adjusting a plurality of coefficients in the at least one digital signal processor based upon differences in the acoustic pseudo random noise and the output of the at least one digital signal processor to produce an optimized internal speaker output for the portable communications device.